

## RESULTS OF OPERATION FOR MALIGNANT TUMOURS OF THE BREAST.

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MORE general diffusion of knowledge regarding malignant disease is a public need. The comparatively good results that are now obtained in the best hospitals are not appreciated by the public generally. One may go further, and say that the advances in treatment and the improved statistics now available are not appreciated by a considerable proportion of the general practitioners; and further yet, that they are not always recognized by some of the active members of the hospital medical boards. No better missionary work can be undertaken than the education of the lay public on this great question. Hospital surgeons are tremendously handicapped, not by the indifference of the public to this question of malignant disease, because they are not indifferent; but by their lack of knowledge and appreciation of its many sides. The fundamental facts that cancer is at the start a local disease, and that the only successful way of treating it is to remove it, should be shouted from the housetops.

Up to the present, early recognition and early removal offer the best means of getting rid of a disease that, unrelieved, progresses steadily, and sooner or later destroys life.

Until we know more of the causes of cancer, and discover some better method of treatment than now obtains, our results will improve only as the public realizes more clearly the importance of early removal of all malignant neoplasms and of all lesions known to favour the development of cancer.

In December, 1907, I published in the *Montreal Medical Journal* a report of 90 mammary tumours, with special reference to the end-results in the patients from whom malignant growths had been removed. Of the 90 tumours, 26 were benign, 68 were carcinomatous, and 1 a sarcoma. Of the carcinomatous tumours, 46 had been removed more than three years; 13 were alive and well, or 28·5 per cent; 18 could not be traced. In the above percentage estimate of recovery, the eighteen untraced cases were considered to have died from a recurrence of the disease.

I now present another series of 102 cases of mammary tumour: carcinoma, 87 cases; sarcoma, 2 cases; fibro-adenoma, 13 cases. One of the cases of sarcoma disappeared, at least I can find no trace of her; the other died of recurrent disease two years after operation.

Of the carcinoma cases, 5 were not submitted to operation, 3 being clearly inoperable, and 2 refused operation. In the remaining 82 cases the complete operation was performed. I have been able to trace 65 of these, and find 33 of them alive and well three years after operation, or 50 per cent. If we consider the remaining 49 to have died of recurrence, we have 33 out of

82 cases alive and well three years after operation, or rather more than 40 per cent. The above figures include all my cases, both public and private.

In tracing some of the cases reported in 1907, I find that 1 is alive and well seventeen years after operation, 1 fifteen years, 1 fourteen years, 3 ten years, 2 nine years; and in the present series, 3 seven years, 6 six years, and 5 five years. If the present series shows better results than the first, it is chiefly because the disease has been recognized earlier.

If we add the two series together, we have 150 cases of carcinoma of the breast operated upon. Counting all cases not traced as having died of recurrent carcinoma, we find 46 alive and well three or more years after operation, or 30 per cent. These figures, although somewhat encouraging, are far from satisfactory. When we know that the disease is at first an entirely local condition, and that modern surgical technique renders possible the total removal of the disease with only what may be termed an accidental mortality, we cannot but feel that if patients applied earlier, the percentage of cases remaining free from recurrence should be 70 instead of 30.

The complete operation was performed in every case; that is to say, the whole breast was removed, together with the sternal portion of the pectoralis major muscle, the pectoralis minor, the glands in the axilla, the fascia covering the serratus magnus, the anterior border of the latissimus dorsi, and the upper part of the external abdominal oblique. The triangle of the neck was dissected in those cases in which it seemed to be indicated. During the past twelve years or more, I have begun the operation by dividing the outer attachments of the pectoral muscles to the humerus and to the coracoid process, as first recommended and practised, I believe, by Arpad G. Gerster, of New York.

There can be little doubt that, as pointed out by Handley, our knowledge of the cancerous processes in the breast, and the comparatively better results now obtained by improved scientific technique in operation, are in large measure due to English-speaking surgeons. We are greatly indebted to Moore, Banks, Handley, and Stiles in Great Britain, and to Gross, Gerster, Halsted, Rodman, and Meyer in America.

The complete operation is a safe one. In the 150 complete operations for carcinoma of the breast there was only one death, and this should not have occurred; it was the result of faulty preparation of the patient for operation. There was a fungating mass. The line of incision was not properly protected, and infection occurred which proved fatal. The most satisfactory preparation of such cases in my experience is thorough, deep cauterization. In the above unfortunate instance the dirty wound was treated by the application of pure carbolic acid. In similar cases prepared by cauterization I have had no trouble whatever.

There is no disability following the removal of the sternal portion of the pectoralis major and the pectoralis minor. There was a case reported in New York, in which a woman from whom the pectorals had been removed on each side, was earning her living as a charwoman. After the complete operation it is the exception to find any appreciable weakness or lessened range of motion. The complete operation does not prolong the period of disability.

The teaching of Sampson Handley indicates that undue rough handling of a carcinomatous breast is unwise. Cancer cells are perhaps dislodged and forced along lymphatic vessels more easily and more frequently than we have appreciated. In my clinic I always see to it that students palpate mammary tumours with gentleness.

A case operated upon eight days ago presented points of more than usual interest. The right breast and the glands of the right axilla had been removed three years before by another surgeon. On examination, I found a recurrent nodule at the sternal end of the old cicatrix. The glands on the lower border of the left pectoralis major and in the left axilla were enlarged and hard. There was also a hard nodule palpable above the left clavicle. No evidence of disease could be detected in the left breast. Apparently the cancer cells had been forced across the median line along the deep fascia to the left axilla. We found, then, the axillary and supraclavicular glands on the left side involved before the breast on that side. This unusual sequence of events may perhaps have been due, in part at least, to the fact that the lymphatic vessels running to the right from the recurrent nodule had been removed at the first operation three years before. There was no evidence of mediastinal involvement.

It is conservative surgery to remove all fibro-adenomas from the breast. The evidence is about conclusive that in some instances their presence favours the occurrence of conditions that lead to the development of malignant disease.

Until we have more knowledge of cancerous processes, would we not be acting in the best interests of our patients if we inaugurated a campaign against all habits, occupations, and histological deviations from the normal that are known to be followed in a very considerable percentage of cases by malignant disease? Chimney-sweep cancer has been abolished by act of parliament, and so might be Buyo cheek cancer, Kangri skin cancer, the skin cancer on the arms of paraffin workers, and the brand cancer of cattle.

There are 75,000 deaths annually from cancer in the United States. A well-organized crusade against all conditions predisposing to this dread disease would lessen the number of cases very materially. Let us fight it with the best weapons that we have to-day, namely—early diagnosis; early removal of the disease when it occurs; the removal of the so-called pre-cancerous conditions when that can be done safely without causing disability; and the prevention by legislation of habits, customs, and labour conditions that have been shown to be etiological influences.